STEGGALL'S

PRACTICAL CHART

MIDWIFERY.

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STEGGALL, J.

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A PRACTICAL CHART OF MIDWIFERY:

BEING A SYNOPTICAL COMPENDIUM OF THE VARIOUS CASES, AND THEIR MANAGEMENT, AND OF THE UNTOWARD OCCURRENCES DURING LABOUR.

BY JOHN STEGGALL, M. D.

DIMENSIONS OF THE FEMALE PELVIS AND FŒTAL HEAD

DIMENSIONS OF THE FEMALE PELVIS

The bones which compose the pelvis are the sacrum, coccyx, and 2 ossa innominata. Each os innominatum is subdivided into pubis, ilium, and ischium. The pelvis is divided into the brim or upper aperture, the cavity, and the outlet or lower aperture. The axis of the brim is in a line drawn from the umbilicus to the extremity of the sacrum. The axis of the outlet is in a line drawn from the promontory of the sacrum to the centre of the vulva or os externum. The diameter of a brim of an average pelvis, taken from the symphysis pubis to the promontory of the sacrum, measures four inches; the transverse measures five inches, and the oblique diameter, from the cotyloid cavity on one side, to the sacro-iliac syncondrosis on the other, measures 5½ inches. The diameters of the outlet measure each 4 inches, but the anterior-posterior may acquire an additional inch by the yielding of the coccyx; so that the long diameter of the brim and outlet is reversed. The length from the symphysis pubis to the hollow of the sacrum is 5 inches.

DIMENSIONS OF THE CHILD'S HEAD

The length from the chin to the occiput is about 5 inches; from the occiput to the forehead is about 4½ inches; from the prominence of one parietal bone to that of the other, 3½ inches; and from the vertex to the basis of the cranium, 3 inches.

SYMPTOMS OF LABOUR

The common and general symptoms of natural labour, succeed one another in the following order:—First, grinding pain about the loins, sickness, rigors, dilatation of the os uteri. The contraction of the uterus is felt by the hand placed over the abdomen. Frequent desire to go to stool, expulsive bearing down pains occurring at intervals. The membranes are ruptured; the liquor amnii escapes; the head descends into the pelvis; the external parts yield, and the head emerges; the placenta is expelled soon afterwards.

NATURAL LABOUR TAKES PLACE

BY PRESENTATION OF THE HEAD IN FOUR POSITIONS

POSITION I. The occiput rests over the left cotyloid cavity.

II. The occiput rests over the right cotyloid cavity.

III. The occiput rests over the right sacro-iliac symphysis.

IV. The occiput rests over the left sacro-iliac symphysis.

Mechanical Process. The chin rests upon the breast, the head passes through the brim, a turn equal to the fourth of a circle is produced by the inclined plane of the pelvis; the occipital protuberance is carried behind the symphysis pubis, and the face towards the concavity of the sacrum.

The head then arrives at the outlet—it passes through it; the occiput emerges first, and then the face, sweeping along the concavity of the sacrum. The shoulders impinged in the brim, make a turn. The one which was behind, passes first through the outlet. The same applies to the nates.

The mechanism is the same, except that after the turn, the face arrives behind the symphysis pubis, and the occiput rests against the concavity of the sacrum. The occiput emerges first, and the face afterwards.

When the chin presents, and is in front, the labour may go on; in that case the face emerges first; the head is bent backwards. If the chin presents and is behind, natural labour is impossible.

BY PRESENTATION OF THE LOWER EXTREMITIES IN FOUR POSITIONS

POSITION I. The heels are towards the left cotyloid cavity.

II. The heels are towards the right cotyloid cavity.

III. The heels are towards the right sacro-iliac symphysis.

IV. The heels are towards the left sacro-iliac symphysis.

Mechanical Process. The breech is placed diagonally in the brim; there is a turn made—one buttock is behind the symphysis pubis, and the other towards the concavity of the sacrum; the one behind emerges first; the same with the shoulders: the chin inclines to the thorax, to pass the brim. There is a turn, and the occiput arrives behind the symphysis pubis, with the face on the cavity of the sacrum. The face emerges first from the outlet, and then the occiput, as in all deliveries, by the lower extremities.

The same process takes place, except, that after the turn, the face is forced behind the pubes, and the occiput rests upon the sacrum—the face emerges first.

TWIN CASES

If after the birth of one child, it is ascertained that there is another in utero, rupture its membranes, and ascertain its presentation; alter it, if unfavourable, and proceed as usual. When the last child is expelled, twist the cords about each other, so that the placentæ may come away together. This treatment applies equally to triplet cases.

LABOURS WHICH REQUIRE MANUAL ASSISTANCE ONLY

PRESENTATION OF THE HEAD, ANY PART OF THE UPPER EXTREMITIES, AND BODY

First Indication. When the labour is without accident, and the head is at the brim of the pelvis, but badly placed, an ear or the face presenting, we must endeavour to put it in its proper position. Introduce the hand, carrying the fingers along the side of the pelvis: if it is possible, grasp the vertex with the fingers, and insinuate the head, in the brim. The rest should be left to the natural powers. The lever might advantageously be used in this case.

Second Indication. Should convulsions, dangerous hæmorrhage, or torpor of the uterus come on, the patient must be delivered by the operation of turning, which is thus performed. The patient may be placed, as usual, on her left side, evacuate her bladder and rectum, wait till the os uteri is well dilated; then, during an interval of pain, introduce your hand into the uterus, passing it carefully along the inside of the membrances; pass the fingers over the body of the fœtus, and take hold of the feet, which are generally towards the abdomen; grasp them together or separately, and bring them out of the external parts. Alter the position by giving the body a slight turn from outwards inwards; disengage the arms, and first the one behind; depress the shoulder, and pass the finger over the face and chest; give to the head its motion of flexion; place the fingers of one hand on the occiput, which recedes; and the fingers of the other hand on the face, to lower the head; repeat the turn, place the fingers of one hand near the mastroid process, and the nose of the other on the sides of the chin, support the perineum, and allow the face to emerge first.

PRESENTATION OF THE LOWER EXTREMITIES OF THE BREECH, KNEES, OR FEET

Diagonal positions require the same treatment as is adopted in the management of turning. If the top points to the vertebral column or pubis, the position must be rectified by a slight turn of the body.

PRESENTATION OF THE FUNIS UMBILICALIS

If the funis presents, all ingenuity possible should be called in aid to retain it in utero, to save the life of the child. If it is practicable, push it up into the uterus, over some part of the fœtus: prevent its return, by placing a small piece of sponge at the os uteri. If the attempt to return it fail, place it near one of the sacro-iliac symphyses, that it may suffer the least possible pressure. Turning is resorted to occasionally, but only at the earnest request of the mother, on account of the danger attending the operation.

LABOURS WHICH REQUIRE INSTRUMENTAL AID

PRESENTATION OF THE HEAD AT THE BRIM OR OUTLET, THE BODY BEING IN OR OUT OF THE PELVIS

The application of the forceps is required in those protracted cases, in which uterine action has ceased or nearly so: in those cases, in which there is want of room, exhaustion, hæmorrhage, or convulsions, and in which it is desirable to expedite delivery. In this and all other operations necessary in labour, the bladder and rectum should be carefully evacuated; and it is absolutely requisite that the os uteri should be well dilated, as well as the external parts.

There are several presentations to which the forceps may be applied: viz. The occiput towards the pubes or sacrum, or towards either side of the pelvis—The chin may be towards the pubes, the sacrum, or either side of the pelvis—The forehead may present, or an ear.

In all cases when the head is in the pelvis, the forceps should be applied in the direction of from the occiput to the chin, or *vice versâ*, and in every case it is requisite to feel an ear.

Manner of applying the forceps.—Place the patient at the edge of the bed on her left side; take the half of the forceps with the fixed handle in the left hand, introduce the blade over the upper part of the child's head, guiding it with the index-finger of the right hand; take the other blade in the right hand, and introduce it opposite to the first, and then lock them together; when this is done, general traction may be used from one blade to another, bearing in mind the different bearings of the parts to be passed.

The cases requiring the use of the long forceps, are those in which there is a little narrowing or disproportion between the brim and fœtal head, and in which the uterus is unable to overcome the obstacle. In these cases the head rests on the upper aperture, and the forceps are to be applied over the occiput and face, with the convexity of the blades towards the sacrum.

KNEE OR BREECH PRESENTATION

The use of the fillet is sometimes required to keep a firm hold of one part, whilst the hand is in search of another. When it is applied to the knee, carry the index-finger to the hend of the ham, to pass the fillet with which the finger is covered; keep hold of it; whilst the other hand is engaged in bringing down the other knee. Terminate the labour as in footling cases.

The blunt hook is sometimes required to fix in the groin, but should be used with great caution, as it is oftentimes the cause of fracture of the femur. It is used in those cases in which it is impossible to insinuate the finger in the groin or ham.

LABOURS WHICH REQUIRE THE USE OF CUTTING INSTRUMENTS

DISPROPORTION BETWEEN THE FŒTAL HEAD AND PELVIS

1*st. Indication.*—If the fœtus be dead, or indeed if it be alive, and it is ascertained that the distance from the symphysis pubis to the sacrum is less than 2⅛ inches, the operation of craniotomy should be performed, and the cranium emptied of its contents. If a fontanelle presents, or a solid part of the cranium, perforate with the perforator, and break up the mass of the cerebrum; then apply the crotchet or craniotomy forceps to extract it.—During this operation the uterus should be kept in situ hy pressure over the abdomen.

2*nd. Indication.*—The distance from the symphysis pubis to the promontory of the sacrum is less than 1½ inch, and the longest diameter of the pelvis is less than 2½ inches; then the Cæsarian section must be performed as follows: Place the patient on her back, cut down on the linea alba for about the length of 4 inches with a scalpel; then divide through the peritoneum with a blunt-pointed bistoury; cut through the uterus to the same extent, and in the same direction; extract the fœtus and placenta through the opening; apply a bandage gently round the abdomen. The section of the abdomen is likewise admissible, when the uterus has emptied its contents into the abdominal cavity, and the os and cervex uteri are not dilated.

DECAPITATION OF THE FŒTUS

Decapitation is requisite in cross-presentations, when there is a want of room in the pelvis, or the fœtus is dead.

If the fœtus has been decapitated, and the head alone remains in the uterus, introduce the hand to place it in a favourable position: grasp it with the forceps or crotchet: empty the cranium if it he disproportionate, and finish as in the above-mentioned cases.

If the body remains behind, and the shoulders are still at the brim of the pelvis, attempt turning, as above described; or take hold of the arms, and pull, by means of them, to extract the rest of the body. Apply the blunt hook in the bend of the axilla, and use extracting force.

STILL-BORN CHILDREN

Should a child be still-born without signs of decomposition, proceed instantly to the treatment for suspended animation. Apply hot wet napkins to the chest and abdomen, or immerse the child up to its chin in a basin of warm water; imitate respiration hy alternately inflating and expelling the air from the lungs. Exhibit some stimulant in small quantity, and use friction over the chest and abdomen.

PLACENTA OR AFTER-BIRTH

The primary indication is simply to aid the natural process: to effect this, pull gently the umbilical chord in the direction of the axis of the brim of the pelvis; rotate the placenta without using extracting force, in order to get away every portion of it. If it simply lodges in the vagina, introduce two or three fingers, which may be passed through it or behind it, in order to extract it, after the manner of the crotchet. The same must be done if the umbilical chord he ruptured. The placenta is sometimes retained in the uterus, and requires manual removal on account of the hæmorrhage which ensues. The causes of it are uterine debility, irregular contraction, or morbid adhesion of the placenta to the uterus. To obviate the stricture, pass the hand up and gradually dilate it; remove the placenta, and separate carefully the adhesions if possible. To remedy the torpor, pass up the hand, extract the placenta, move the fingers about in the uterine cavity, grasp it externally, and dash water over the abdomen. The placenta adheres so firmly sometimes, that a portion of it must necessarily he left in utero.

DANGEROUS OCCURRENCES DURING LABOUR.

HÆMORRHAGE OCCURS

	Symptoms.	Causes.	Prognosis.	Treatment.
DURING LABOUR	A discharge of blood from the uterus. Pulse quick and weak. Pale and ghastly countenance. Vomiting. Restlessness. Syncope. Difficult respiration and convulsions.	Displacement of a portion of the placenta, or its attachment over the os uteri.	The danger of flooding must be estimated from its rapidity and quantity, and from the state of the constitution. Pain is a good symptom, as it denotes contractile power in the uterus.	The general treatment of all hæmorhages is the same. Remove the exciting cause, place the patient in the recumbent posture, with the feet rather raised above the rest of the body; ventilate the room with cool air; administer cold, iced, or acid drinks; apply cold wet napkins to the pubes and abdomen, and enjoin the greatest quietude. Introduce some cold body, such as a piece of ice, into the vagina, to hasten the formation of coagula. Apply gently a bandage round the abdomen. Should the placenta be attached over the os and cervi uteri, pass the fingers through its substance, bring down the feet, and hasten the delivery. Should there be torpor of the uterus, endeavour to recal its action, by introducing the hand, and moving it about in its cavity, and by external pressure and friction. Syncope must be viewed in two points of view: as a means of checking the flooding, and as a symptom of extreme danger; but it is only in the most extreme cases that stimulants are admissible.
AFTER LABOUR		Retention of the placenta.		
AFTER THE EXPULSION OF THE PLACENTA		Torpor of the uterus. Inversio uteri.		

CONVULSIONS

Symptoms.	Causes.	Prognosis.	Treatment.
Pain in the head, vertigo, and loss of consciousness. Eyes wild and glaring, pupil dilated. Oppression at the epigastrum. Turgidity of the vascular system, particularly about the head and neck. Respiration hurried, attended with a tremulous hissing noise. Rigidity of the voluntary muscles, during the paroxysm, with a variety of other symptoms.	Plethora in an irritable habit. Excessive irritation, particularly of the os and cervix uteri. Indigestion. They more generally occur in first labours.	Convulsions are very dangerous, sometimes occasioning the death of the mother, and frequently that of the child. A comatose state is unfavorable to recovery.	1*st. Indication.*—Relieve the plethora by a copious bloodletting from the arm, jugular vein, or temporal artery: apply leeches to the neck or epigastrium: shave the head, and apply cold: give nauseating doses of tartarized antimony: apply sinapisms to the feet or legs: dash cold water suddenly over the body. 2*nd. Indication.*—Relieve the uterus: as soon as dilatation ensues, proceed to the delivery, but use the mildest means, as all additional irritation should be sedulously avoided.